Amortised cost for financial instruments (Lecture A884 – 7.05 minutes)

The accounting and disclosure requirements for financial instruments are dealt with in FRS 102, Section 11 *Basic Financial Instruments* and Section 12 *Other Financial Instruments Issues*. This section examines the accounting issues for basic financial instruments as this is an area that has been cited as posing particular challenges for preparers and auditors.

Understanding what a financial instrument is

It is useful to go 'back to basics' to understand exactly what constitutes a financial instrument. This is because some transactions may, at first glance, appear to be a financial instrument but are not.

Definitions

Financial asset	*Financial liability*
Any asset that is:	Any liability that is:

Financial asset

Any asset that is:

- cash;
- an equity instrument of another entity;
- a contractual right:
    - to receive cash or another financial asset from another entity, or
    - to exchange financial assets or financial liabilities with another entity under conditions that are potentially favourable to the entity; or
- a contract that will or may be settled in the entity's own equity instruments and is:
    - a non-derivative for which the entity is or may be obliged to receive a variable number of the entity's own equity instruments; or
    - a derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instruments. For this purpose the entity's own equity instruments do not include instruments that are themselves contracts for the future receipt or delivery of the entity's own equity instruments.

Financial liability

Any liability that is:

- a contractual obligation:
    - to deliver cash or another financial asset to another entity; or
    - to exchange financial assets or financial liabilities that are potentially unfavourable to the entity; or
- a contract that will or may be settled in the entity's own equity instruments and is:
    - a non-derivative for which the entity is or may be obliged to deliver a variable number of the entity's own equity instruments; or
    - a derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instruments. For this purpose the entity's own equity instruments do not include instruments that are themselves contracts for the future receipt or delivery of the entity's own equity instruments.

From the definitions above, you can see a financial asset requires a 'contractual right' to be in force. Conversely, a financial liability requires a 'contractual obligation' to have arisen on the part of the reporting entity.

Certain transactions, such as tax receipts or payments, may, at first glance, appear to be in scope of a financial instrument because they are either settling an overpayment made by the entity (e.g. in respect of s455 corporation tax); or paying a liability (e.g. in respect of a corporation tax liability arising on the entity's profits).

Tax receipts and payments are not in scope of financial instruments because they arise due to legislative requirements as opposed to contractual rights/obligations. In addition, FRS 102, Section 29 *Income Tax* deals with the accounting requirements for taxation transactions.

Other transactions, such as provisions for warranties, do not meet the definition of a financial asset or financial liability because the cash has already changed hands. It is therefore important to ensure that the transaction does, in fact, meet the definition of a 'financial instrument', 'financial asset' or 'financial liability' to ensure the subsequent accounting treatment is correct.

Amortised cost method

Generally, basic financial instruments (e.g. trade debtors, trade creditors, basic bank loans and finance leases) are measured at amortised cost using the effective interest method. The term 'amortised cost (of a financial asset or financial liability')' is defined as:

*The amount at which the **financial asset** or **financial liability** is measured at initial **recognition** minus principal repayment, plus or minus the cumulative **amortisation** using the **effective interest method** of any difference between that initial amount and the maturity amount, and minus any reduction (directly or through the use of an allowance account) for impairment or uncollectability.*

The term 'effective interest method' is defined as:

*A method of calculating the **amortised cost** of a **financial asset** or a **financial liability** (or a group of financial assets or financial liabilities) and of allocating the interest income or interest expense over the relevant period.*

The amortised cost using the effective interest method is the **only** way of subsequently measuring basic financial instruments. Bases such as the 'level-spread method'; or 'sum-of-the-digits method' are not permitted because they are not recognised methods in FRS 102.

It should also be noted that FRS 105 *The Financial Reporting Standard applicable to the Micro-entities Regime* does not recognise the amortised cost and effective interest method because these methods are deemed too onerous for micro-entities. Consequently, micro-entities preparing financial statements under FRS 105 measure such loans at cost. The interest recognised in profit and loss will be the actual amount paid to the financier/bank.

Loan arrangement fees

Another issue that appears to be contentious is the accounting treatment for loan arrangement fees under FRS 102. Some practitioners recognise loan arrangement fees, for example, in profit or loss as they have arisen. Other practitioners have recognised them in prepayments and released them to profit and loss over the life of the loan.

These treatments are not compliant with FRS 102 and the examples in FRS 102, para 11.13 clarify the accounting treatment as follows:

Example 1 – Financial liabilities

For a loan received from a bank at a market rate of interest, a payable is recognised initially at the amount of the cash received less separately incurred transaction costs.

Example – Basic bank loan with an arrangement fee

Bauer Ltd takes out a five-year bank loan for £750,000. The bank charges a 1.25% loan arrangement fee which is non-refundable and is payable on inception of the loan.

Initial recognition

The loan is initially recorded as follows:

	£
Dr Bank	740,625
Cr Loan payable	740,625

Being initial recognition of loan, net of transaction costs

Subsequent measurement

The loan is then subsequently measured using the amortised cost method, which uses the effective interest rate. In this example, the interest has been calculated at 3.71% (see below) using the Goal Seek function in Microsoft Excel. For simplicity, the repayments in the table below have been annualised but for a more accurate interest figure, the payments should be profiled on a monthly basis:

Year	Opening balance	Cash flow	Interest at EIR	Closing balance
	£	£	£	£
1	740,625	(165,000)	27,459	603,084
2	603,084	(165,000)	22,360	460,444
3	460,444	(165,000)	17,071	312,515
4	312,515	(165,000)	11,587	159,101
5	159,101	(165,000)	5,899	-

In year 1, the journals to record the loan are:

	£
Dr Loan payable	165,000
Cr Bank	165,000

Being loan repayments made in the year

	£
Dr Interest expense	27,459
Cr Loan payable	27,459

Interest calculated at the effective interest rate

The loan is then split between the creditor falling due within one year of £142,640 (£603,084 - £460,444) and the amount falling due after more than one year £460,444 to comply with the

statutory formats of the balance sheet.

Incorrect treatment of the loan arrangement fee

If it is assumed that the preparer has debited the loan arrangement fee to profit and loss, i.e.:

	£
Dr Bank	740,625
Dr Profit and loss	9,375
Cr Loan	750,000

The interest charge debited to profit and loss will be affected because the effective interest rate will essentially be lower (i.e. the rate will be 3.26% rather than 3.71%) as can be seen as follows:

Year	Opening balance	Cash flow	Interest at EIR	Closing balance
	£	£	£	£
1	750,000	(165,000)	24,476	609,476
2	609,476	(165,000)	19,890	464,366
3	464,366	(165,000)	15,155	314,521
4	314,521	(165,000)	10,264	159,785
5	159,785	(165,000)	5,215	-

This will also mean the loan has not been properly accounted for in accordance with FRS 102, Section 11.

Calculating the effective interest rate

A quick way of proving the effective interest could be to use the Internal Rate of Return function in Microsoft Excel. Using the figures in the example above, this is how you could do it:

	A	B
1	(740,625)	
2	165,000	
3	165,000	
4	165,000	
5	165,000	
6	165,000	
7		3.71%

Formula is =IRR(A1:A6)

Another way of dealing with the effective interest rate is to use the Goal Seek function in Microsoft Excel.

This is done by profiling the loan as follows:

	A	B	C	D	E
1	Effective interest rate				
2					
3	Year	**Opening balance**	**Cash flow**	**Interest at EIR**	**Closing balance**
4		£	£	£	£
5	1	740,625	(165,000)	0	575,625
6	2	575,625	(165,000)	0	410,625
7	3	410,625	(165,000)	0	245,625
8	4	245,625	(165,000)	0	80,625
9	5	80,625	(165,000)	0	(84,375)

For clarity, the formulas in the spreadsheet above are as follows:

	A	B	C	D	E
1	Effective interest rate				
2					
3	Year	Opening balance	Cash flow	Interest at EIR	Closing balance
4		£		£	£	£
5	1	740625	-165000	=C1*B5	=B5+C5+D5
6	2	=E5	-165000	=C1*B6	=B6+C6+D6
7	3	=E6	-165000	=C1*B7	=B7+C7+D7
8	4	=E7	-165000	=C1*B8	=B8+C8+D8
9	5	=E8	-165000	=C1*B9	=B9+C9+D9

The highlighted cell C1 will be used to calculate the effective interest rate.

To use the Goal Seek function, go to the Data tab, select 'What-if Analysis' and then 'Goal Seek'. A box will appear, and you enter the following information:

Goal Seek

Set cell: E9

To value: 0

By changing cell: C1

Cancel   OK

When you click 'OK', Excel automatically calculates the effective interest rate as follows:

	A	B	C	D	E
1	Effective interest rate		3.71%		
2					
3	Year	Opening balance	Cash flow	Interest at EIR	Closing balance
4		£	£	£	£
5	1	740,625	(165,000)	27,459	603,084
6	2	603,084	(165,000)	22,360	460,444
7	3	460,444	(165,000)	17,071	312,515
8	4	312,515	(165,000)	11,587	159,101
9	5	159,101	(165,000)	5,899	(0)